

Initial data for determining the thermodynamic functions of $\text{Ca}_2\text{P}_2\text{O}_7$, $\text{Sr}_2\text{P}_2\text{O}_7$, $\text{Ba}_2\text{P}_2\text{O}_7$, and $\text{Ra}_2\text{P}_2\text{O}_7$ by the Neumann–Kopp and the Kellogg–Kubaschewski methods

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Table 1

Heat capacity of the initial solid compounds under standard conditions

Compound	$C_p, \text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$	Compound	$C_p, \text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$	Compound	$C_p, \text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$
CaO	42.122 [1]	P_4O_{10}	211.710 [1]	$\text{Ca}_2\text{P}_2\text{O}_7$	187.763 [1, 4]
SrO	45.15 [2]				
BaO	47.278 [1]				
RaO	46.4 [3]				

Table 2

Melting point of selected $\text{Ca}_2(\text{Sr}_2, \text{Ba}_2, \text{Ra}_2)\text{P}_2\text{O}_7$ pyrophosphates

Compound	$T_{\text{m.p.}}, \text{K}$	Source
$\text{Ca}_2\text{P}_2\text{O}_7$	1631	[1]
$\text{Sr}_2\text{P}_2\text{O}_7$	1648	[5]
$\text{Ba}_2\text{P}_2\text{O}_7$	1703	[5]
$\text{Ra}_2\text{P}_2\text{O}_7$	1676	[result of these authors]

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